ADMINISTERING PRINTERS
(OSA-2)

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VERSION (1.0)

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ADMINISTERING PRINTERS

OVERVIEW

This document outlines some of the basic AIX system administration functions for administering printers connected to an IBM RS6000 housing the MUNIS financial system. Print Queues, print jobs and printing a file from AIX are addressed.

For information on setting up and configuring printers, see the documents ***Host Printing - Parallel (OSC-1), Host Printing - Serial (OSC-2),*** or ***Remote Printing (OSC-3)***. For information on setting up printers in MUNIS, see the document ***MUNIS System Administration (MSA-1)***. For information on printing IQ reports, see the document ***IQ Printing (OSC-4)***. All the documents referenced are in the ***MUNIS User Procedures Guide***.

CREATING A PRINT QUEUE

1. Login as "**root**" at the console.
2. At the $ prompt type:

   smit print (Press **Enter.**)

   This will bring up the Print Spooling screen.
3. Select **Add a Print Queue** on the Print Spooling screen.

The following sub-screen is displayed:

```
Session   Edit   Commands   Settings   Help

                          Print Spooling
Move cursor to desired item and press Enter
  Start a Print Job
  Manage Print Jobs

                  Add a Print Queue
  Move cursor to desired item and press Enter.  Use arrow keys to scroll.
  #ATTACHMENT TYPE              DESCRIPTION
   local                        Printer Attached to Local Host
   remote                       Printer Attached to Remote Host
   xstation                     Printer Attached to Xstation
   ascii                        Printer Attached to ASCII Terminal
   hpJetDirect                  Network Printer (HP JetDirect)
   file                         File (in /dev directory
   other                        User Defined Backend

F1=Help          F2=Refresh       F3=Cancel        F4=List
Esc+5=Reset      Esc+6=Command    Esc+7=Edit       Esc+8=Image
Esc+9=Shell      Esc+0=Exit       Enter=Do
```

4. Select **Local.** (Press **Enter**.)
5. Select printer **type**. (Press **Enter**.)
6. Select printer **model**. (Press **Enter**.)
7. Select **parallel**. (Press **Enter**.)
8. Select **ppa0**. (Press **Enter**.)

The following is a sample of the screen that is then displayed.

```
Session   Edit   Commands   Settings   Help

                          Add a Print Queue
Type or select values in entry fields.
Press Enter AFTER making all desired changes.

                                                        [Entry Fields]
  Description                                          IBM 6400 Printer

  Names of NEW print queues to add
     Epson FX Emulation                               []
     Printronix P-series Emulation                    []
     IBM Proprinter III XL Emulation                  []

  Printer connection characteristics
*    PORT number                                      [p]          +
     Type of PARALLEL INTERFACE                       [standard]   +
     Printer TIME OUT period (seconds)                [60]         +#
     STATE to be configured at boot time               available   +



F1=Help             F2=Refresh          F3=Cancel           F4=List
Esc+5=Reset         Esc+6=Command       Esc+7=Edit          Esc+8=Image
Esc+9=Shell         Esc+0=Exit          Enter=Do
```

9. Enter the **new print queue's name** in the field with the corresponding emulation.
10. Set the Printer Time Out period to **1000**.

CHECKING PRINTER JOB STATUS

The status of print jobs can be checked using the following commands:

1. **lpstat**
2. **qchk**

Use these commands if the printer does not seem to be receiving print jobs from MUNIS.

Command: lpstat

This command will check the status of **ALL** print queues in the AIX system.

A sample print queue status screen displayed using the **lpstat** command is shown below:

```
Queue     Dev     Status        Job   Files        User          PP    %   Blks  CP   Rnk
-------  -----  ---------  ---  --------  ---------  ----  --  ----  ---  ---
draft_q    lp0     READY
fin_q      @fin    READY          { remote queue }
fin_q: printer print_q: spooling is on.
das_q      @home   READY          { remote queue }
das_q   print      READY
print_q    lp0     READY
conden_    lp0     READY
check_q    lp0     READY
```

NOTE: ***When the lpstat command communicates with a remote host, the display occasionally appears to hang while the command waits for a response from the remote machine. The command eventually times out if no connection is established between the two machines.***

Command: qchk -P [print queue name]

This command can be used to quickly check the status of only **ONE** print queue. Specify the queue name after the **-P**.

For example at the $ prompt, type: **qchk -P print_q** (Press **Enter**.)

The following screen reflects the result of the above command:

```
Queue     Dev     Status        Job   Files        User          PP    %   Blks  CP   Rnk
-------  -----  ---------  ---  --------  ---------  ----  --  ----  ---  ---
print_q    lp0     READY
```

The following table describes the field names displayed on the **lpstat** and **qchk** screens.

Field Name	Description
Queue	Print queue that will handle the print job.
Dev	Device the queue will print to, i.e., lp0 (printer).
Status	Status of the print queue.
Job	Print job number.
Files	File name the print job will print.
User	User name that submitted the print job.
PP	Number of pages printed.
%	Percentage of the print job completed.
Blks	Number of blocks in the print job.
CP	Number of copies.
Rnk	Where in the print queue the print job is ranked.

DISABLING A PRINT QUEUE

Command: disable [print queue name]

This command is used to deactivate a print queue.

For example, to deactivate the print queue **draft_q** (one of the six print queues listed in the above sample screen) type the following at the **$** prompt:

disable draft_q (Press **Enter**.)

The following screen reflects the execution of the above command:

```
Queue    Dev    Status       Job  Files       User         PP    %   Blks  CP   Rnk
-------  -----  ---------    ---  --------    ---------    ----  --  ----  ---  ---
draft_q  lp0      DOWN
```

PRINTING A FILE FROM AIX

Command: lp -d [print queuename] [filename]

For example: to send a file named **motd** (which is the system"message of the day") to the print queue **draft_q** at the **$** prompt, type:

lp -d draft_q /etc/motd (Press **Enter**.)

Execute the **qchk** command to check the status of the print job. The screen should be similar to the following:

```
Queue    Dev    Status       Job  Files       User         PP    %   Blks  CP   Rnk
-------  -----  ---------    ---  --------    ---------    ----  --  ----  ---  ---
draft_q  lp0    DOWN
                QUEUED       78   /etc/motd   root                   1     1    1
```

Since **draft_q** print queue was disabled in the previous section, the file will not print, but will be queued.

Notice that the print job **motd** submitted:

- Is listed below the print queue status. Even though the **draft_q** is down, the print job was still sent to the queue.
- Is assigned print job number 78.
- Has **etc/motd** as the file name to print.
- Was submitted by root.
- Has printed no pages.
- Has no percent completed.
- Has one block.
- Has one copy requested.
- Is ranked as the first print job to be printed by this queue.

CANCELING A PRINT JOB

Command: cancel [Job Number]

For example: to cancel the print job submitted in the previous section at the **$** prompt, type:

cancel 78 (Press **Enter**.)

This will remove the print job from the **draft_q** print queue. Execute the **qchk** command to check the status of the print job. The screen should be similar to the following:

```
 Queue    Dev    Status        Job  Files        User         PP    %   Blks  CP   Rnk
-------  -----  ---------  ---  --------  ---------  ----  --  ----  ---  ---
 draft_q  lp0    DOWN
```

Notice that the print queue **draft_q** is still down, but the print job has been removed. The AIX system will send the following message to notify you of the completed action:

"**Job number 78 has been deleted from the queue.<EOT>**"

NOTE: ***Once a print job has started printing, it cannot be canceled by this command.***

ENABLING A PRINT QUEUE

Command: enable [print queuename]

For example: to enable the print queue **draft_q**, at the **$** prompt, type:

enable draft_q (Press **Enter**.)

The following screen reflects the execution of the above command:

```
Queue    Dev    Status        Job  Files        User         PP    %   Blks  CP   Rnk
-------  -----  ---------  ---  --------  ---------  ----  --  ----  ---  ---
draft_q  lp0  READY
```

draft_q is now ready for printing.